

## PATENT COOPERATION TREATY

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REC'D 27 SEP 2004

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

|   |  |   |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |
|---|--|---|-------------------------------------|-----------|---------------------|--------------------------|------------|----------|--------------------------|-------------|--|--------------------------|------------|----------------------------|-------------------------------------|-----------|---|--------------------------|------------|-------------------------|--------------------------|-------------|--|-------------------------------------|--------------|---|
| Applicant's or agent's file reference<br><b>51011 WO</b>  | <b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416                              |   |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |
| International application No.<br><b>PCT/IB2002/002173</b>   | International filing date ( <i>day/month/year</i> )<br><b>13 - 06 - 2002</b> | Priority date ( <i>day/month/year</i> )<br>-  |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |
| International Patent Classification (IPC) or national classification and IPC<br><b>H04Q 7/32</b>  |  |   |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |
| <p><b>Applicant</b><br/><b>Nokia Corporation et al</b></p> <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>3</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <table> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </tbody> </table> |  |   | <input checked="" type="checkbox"/> | Box No. I | Basis of the report | <input type="checkbox"/> | Box No. II | Priority | <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | <input type="checkbox"/> | Box No. IV | Lack of unity of invention | <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | <input type="checkbox"/> | Box No. VI | Certain documents cited | <input type="checkbox"/> | Box No. VII | Certain defects in the international application | <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application |
| <input checked="" type="checkbox"/>   | Box No. I  | Basis of the report   |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |
| <input type="checkbox"/>  | Box No. II   | Priority  |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |
| <input type="checkbox"/>  | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |
| <input type="checkbox"/>  | Box No. IV   | Lack of unity of invention  |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |
| <input checked="" type="checkbox"/>   | Box No. V  | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |
| <input type="checkbox"/>  | Box No. VI   | Certain documents cited   |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |
| <input type="checkbox"/>  | Box No. VII  | Certain defects in the international application  |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |
| <input checked="" type="checkbox"/>   | Box No. VIII   | Certain observations on the international application   |                                     |           |                     |                          |            |          |                          |             |  |                          |            |                            |                                     |           |   |                          |            |                         |                          |             |  |                                     |              |   |

|   |   |
|---|---|
| Date of submission of the demand<br><b>15-12-2003</b>   | Date of completion of this report<br><b>09-09-2004</b>                        |
| Name and mailing address of the IPEA/SE<br>Patent- och registreringsverket<br>Box 5055<br>S-102 42 STOCKHOLM<br>Facsimile No. +46 8 667 72 88 | Authorized officer<br><b>Peter Hedman/MN</b><br>Telephone No. +46 8 782 25 00 |

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/IB2002/002173

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

- international search (under Rules 12.3 and 23.1(b))
- publication of the international application (under Rule 12.4)
- international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

the international application as originally filed/furnished  
 the description:

pages 1 - 11 as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:  
 pages \_\_\_\_\_ as originally filed/furnished  
 pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
 pages\* 1 - 3 received by this Authority on 14 - 06 - 2004  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:  
 pages 2 as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

|                               |                |     |
|-------------------------------|----------------|-----|
| Novelty (N)                   | Claims<br>1-20 | YES |
|                               | Claims _____   | NO  |
| Inventive step (IS)           | Claims _____   | YES |
|                               | Claims<br>1-20 | NO  |
| Industrial applicability (IA) | Claims<br>1-20 | YES |
|                               | Claims _____   | NO  |

## 2. Citations and explanations (Rule 70.7)

The claimed invention relates to the problem of allowing a user of a mobile device to simultaneously monitoring two acoustic signals, which signals are being mixed and transferred to a set of headphones.

In the international search report the following documents were cited:

D1 WO 0064129 A2  
D2 GB 2352136 A  
D3 WO 9943236 A1

D1, describes a portable telephone set which allow an incoming call to be recognized during music replay.

D2 describes a mobile telephone which incorporates a radio, which is installed in a detachable pack of the telephone.

D3 describes a cellular phone in which the functionality of audio and video playing devices is incorporated with wireless communication devices.

The portable telephone set described in D1, which best represents the general state of the art, is capable of ensuring a communicative function, without stopping music replay. Two separate audio components, one of which comprises a cellular radio receiver, are connected to a mixing function, which allow both music replay and a tone posing an incoming call, as well as speech to be supplied to an audio output simultaneously (See page 12, line 23-page 13, line 3; page 19, line 4-19; page 24, line 1-16).

Both the claimed invention and D1 refers to a mobile device, in which two audio signals are being mixed in order to provide

.../...

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

for a user to be able to make telephone communication and listen to a continuous audio signal (music) simultaneously.

D1 differs from claim 1 in that D1 fails to suggest a mobile device which comprise a radio receiver and an audio recorder. I.e. while D1 refers to mixing of stored music and speech, the claimed invention suggests mixing of radio programs and speech. The problem to be solved is to incorporate an audio receiving and recording function into a mobile device.

Portable receiving, as well as recording units are, however, commonly known. The operating of the radio recording, and receiving function, as such, is only described in a conventional, well known manner. Since both mixing alternatives (as referred to in claim 1 and D1, respectively) discuss corresponding problems and solutions (mixing and volume adjusting), it is considered obvious that a person skilled in the art, having the knowledge of D1 and conventional technique for receiving radio programs and recording audio signals, also would mix a speech signal with a recorded audio signal, instead of a stored audio signal.

Claim 2, 4, 5, 11 and 13-15 only suggests details which are considered obvious in this particular context. Also claim 2, 4, 5, 11 and 13-15 therefore fails to involve an inventive step.

In D1 the amplitude of music is adjusted in accordance with the incoming call announcing tone (See for example page 12, line 14-24; figure 2). What is claimed in claim 3 and 6 of the claimed invention therefore fails to involve an inventive step.

What is claimed in claim 7-10 is already known from D1. Claim 7-10 therefore fails to involve an inventive step.

D1 describes a method for mixing two audio signals with different priorities in accordance with what is suggested in claim 11 of the claimed invention. Considering what has been said against claim 1, also claim 11 fails to involve an inventive step.

What is claimed in claim 16-20 is also already known from D1. The method described in claim 16-20 therefore also fails to involve an inventive step.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 1 is not supported by the description as required by Article 6 PCT, as its scope is broader than justified by the description and drawings. The reasons therefore are the following:

The term used in the last sentence of claim 1 "...without influencing the recorded audio signal from the radio receiver", is vague. Even though the two mentioned signals are outputted in superposition, the description fails to address a solution which eliminates any influence from one signal on the other.